Graham White Manufacturing Company
2003 E2 Status Update Report

Graham White Manufacturing Company experienced a solid business year and one in which environmental performance was improved significantly. Many operational changes were investigated during the year with significant implementations listed below:

Compressed Air Systems

Graham White invested in technology to assess compressed air demand and capacity both at the system level and at the point of use. The investigation uncovered points of air consumption waste and higher than necessary energy use. By studying and understanding our compressed air demand we were able to reduce the run-time of one 150HP air compressor to approximately 25% of its former schedule. This resulted in annual savings of $4,950.

Thermographic Survey

During the past year Graham White invested in performing thermographic surveys of major electrical feed and control equipment. The investigation highlighted certain problems with older electrical equipment. As a result we began a systematic replacement of older, less efficient, and overloaded electrical equipment. The anticipated benefits will be greater efficiency and avoidance of costly, unplanned shutdown times to significant portions of our facilities.

Dust Collection Equipment

We performed a major overhaul to existing dust collection equipment at our foundry in 2003. The overhaul consisted of replacing the bags, replacing the motor sheaves and belts and repairing leaks in the exit stack. The improved efficiency of the dust collector will reduce particulate bypass and reduce energy losses in the drive train.

Mold Making Equipment

Early in 2003 the foundry at Graham White came on-line with two new pieces of mold-making equipment. The machines, which mix air with natural gas for the combustion process, had on-board blowers. Previous machines relied on compressed air for the combustion process. This contributed to the savings in the first item with regard to compressed air consumption savings.

40 Year Old Gas Line

The primary natural gas line feeding the foundry was 40 years old and had no cathodic protection. Due to its age and some erratic performance of foundry equipment it was suspected that there might have been leaks in this line. We replaced the line in 2003 with plastic piping eliminating any potential for leaks that may have existed. The project also included installation of a new meter at the site. The result has been more predictable performance of foundry gas-fired production equipment.

Future plans

The following items are being investigated for possible future implementation:

Aqueous Cleaner

We are currently investigating implementation of a three stage aqueous cleaner in our remanufacturing shop. The cleaner would replace solvent cleaners that are problematic, contribute to air emissions, and are labor intensive.

Lighting Control

We are also investigating an automated lighting control system in our main office area. In portions of the office there are lighted areas with little traffic. We are looking at a system that would automatically reduce the lighting, and the energy consumption, in that area during times of very low traffic.

Heat Treat Equipment

There are several pieces of equipment in our heat treat area that are old and utilize outdated control technology. We are investigating replacing this equipment and/or the controls to improve efficiency, reduce energy consumption and improve process reliability.